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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/091,487 | 03/07/2002 | Masaki Tsunekane | 8008-1004 | 9464 |

466 7590 03/19/2004

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| EXAMINER |
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JACKSON, CORNELIUS H

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| ART UNIT | PAPER NUMBER |
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2828

DATE MAILED: 03/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,487

Applicant(s)

TSUNEKANE ET AL.

Examiner

Cornelius H. Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Paul IP
PAUL IP
SUPERVISORY PATENT EXAMINER
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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/16/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Acknowledgment

1. Acknowledgment is made that applicant's Amendment, filed on 10 November 2003, has been entered. Upon entrance of the Amendment, claims 1-31 were cancelled and claims 32-43 were added. Claims 32-43 are now pending in the current application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 32-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyama et al. (JP 2000-269576 in view of Barnes (5128949). Regarding claim 32, Akiyama et al. disclose a laser diode pumped solid state laser apparatus **Drawings 1 and 2**, comprising: laser diode light source **2-7** providing a pumping light; solid-state laser medium **1** that receives the pumping light and provides a laser oscillation light

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from ends thereof; two resonator reflective surfaces **20, 21** at respective said ends of said laser medium **1** and that reflect the laser oscillation light provided from the respective ends of said laser medium **1** back to said ends, said laser medium **1** being between and aligned with said two reflective surfaces **20, 21** so as to define an optical axis for the laser oscillation light through said ends and said reflective surfaces **20,21**; and fluorescence detector **30** that includes a fluorescence receiving surface (**the top surface of the detector**) that receives fluorescence emitted by said laser medium **1** directly from one of said ends of said laser medium **1**, said fluorescence receiving surface (**the top surface of the detector**) being directly adjacent to said optical axis without blocking said optical axis. Akiyama et al. fails to teach the fluorescence receiving surface being between said laser medium **1** and one of said reflective surfaces **20,21**. Barnes teaches the fluorescence receiving surface being between said laser medium **13** and one of said reflective surfaces **16,24**. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the monitoring system of Barnes to the laser apparatus of Akiyama in order to regulate the loss level in relation to the pump and to regulate more accurately the pulse evolution time interval, **see col. 2, lines 15-43**. Also, to avoid loss in the power of the output beam due to reflection, refraction and/or heating of the optical elements used to remove a portion of the output beam.

Regarding claims 33 and 34, Barnes teach the fluorescence detector comprises a photodetector **11**. Akiyama et al. and Barnes discloses the claimed invention except for a mirror/waveguide. It would have been obvious to one of ordinary skill in the art at

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the time the invention was made to simply place the detector within the path of the fluorescence being detected, since it has been held that omission of an element and its function in a combination where the remaining elements perform the same function as before involves only routine skill in the art *In re Karlson*, 136 USPQ 184.

Regarding claim 35, Barnes teaches the fluorescence detector comprises a photodetector 11, wherein space/air is the transparent medium.

Regarding claims 36-39, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claims 40-43, it is inherent that the device as claimed uses the claimed method. Therefore, the rejection used against the device, stands for the method as well.

Response to Arguments

4. Applicant's arguments with respect to claims 32-43 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cornelius H. Jackson whose telephone number is (571)272-1942. The examiner can normally be reached on 8:00 - 5:00, Monday - Friday.

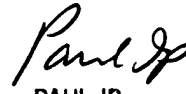
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (571)272-1941. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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